

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for controlling in closed loop an analog system ~~(12)~~ generating an output signal ~~(S')~~ from a control signal ~~(N_C)~~, wherein the control signal ~~(N_C)~~ is a series of digital values, each new digital value being determined from the difference between a signal linked to the output signal ~~(S')~~ and the last determined value of the control signal ~~(N_C)~~ multiplied by a selected factor.

2. (Currently Amended) The control method of claim 1, wherein the analog system ~~(12)~~ generates an analog output signal ~~(S')~~ and is controlled by an analog control signal ~~(V_C)~~ corresponding to the conversion of the digital control signal ~~(N_C)~~, said digital control signal ~~(N_C)~~ being provided by a digital system ~~(42)~~ which generates successive values of the digital control signal ~~(N_C)~~ based on a reference signal ~~(P_{REF})~~ and on a digital detection signal ~~(N²²_D)~~ corresponding to the conversion of an analog detection signal ~~(V²²_D)~~, a new value of the digital control signal ~~(N_C)~~ being determined according to the steps of:

[[-]] measuring an analog signal ~~(V_D)~~ representative of the analog output signal ~~(S')~~;

[[-]] determining the analog detection signal ~~(V²²_D)~~ based on the difference between the representative analog signal ~~(V_D)~~ and the analog control signal ~~(V_C)~~ multiplied by the selected factor;

[[-]] converting the analog detection signal ~~(V²²_D)~~ into a new digital detection signal value ~~(N²²_D)~~; and

[[-]] calculating the new value of the digital control signal ~~(N_C)~~ based on said new value of the digital detection signal ~~(N²²_D)~~ and on the last previously-determined value of the digital control signal ~~(N_C)~~.

3. (Currently Amended) The method of claim 2, wherein the representative analog signal ~~(V_D)~~ and the analog control signal ~~(V_C)~~ have the same sign, the analog detection signal

~~(V''_D)~~—corresponding to the difference between the representative analog signal (~~V_D~~) and the analog control signal (~~V_C~~) multiplied by an amplification coefficient (~~K~~).

4. (Currently Amended) The method of claim 1, wherein the analog output signal (~~S'~~) is a variable voltage.

5. (Currently Amended) The method of claim 2, wherein the representative analog signal (~~V_D~~) is a positive voltage substantially equal to the maximum value of the analog output signal (~~S'~~).

6. (Currently Amended) The method of claim 2, wherein the reference signal (~~P_{REF}~~) is representative of the desired power of the analog output signal (~~S'~~).

7. (Currently Amended) The method of claim 3, wherein the amplification coefficient (~~K~~) is constant.

8. (Currently Amended) The method of claim 3, wherein the amplification coefficient (~~K~~) depends on the operating conditions of the digital system (~~12~~).

9. (Currently Amended) A device for controlling an analog system (~~12~~)—a providing an analog output signal (~~S'~~), comprising:

a digital system (~~42~~)—providing a digital control signal (~~N_C~~);

a digital-to-analog converter (~~16~~)—receiving the digital control signal (~~N_C~~) and providing an analog control signal (~~V_C~~) to the analog system (~~12~~);

a sensor (~~20~~)—measuring an analog signal (~~V_D~~)—representative of the analog output signal (~~S'~~);

a comparator (~~46~~)—providing an analog detection signal (~~V''_D~~)—based on the representative analog signal (~~V_D~~) and on the analog control signal (~~V_C~~); and

an analog-to-digital converter (~~47~~)—converting the analog detection signal (~~V''_D~~) into a

digital detection signal (N_D) provided to the digital system (42), said digital system determining the digital control signal (N_C) based on a reference signal (P_{REF}) and on the digital detection signal (N_D).

10. (Currently Amended) The device of claim 9, wherein the analog system (12) is an amplifier of signals of a portable telephone.